

SUNFLOWER LOSSES TO BLACKBIRDS: AN ECONOMIC BURDEN

LARRY KLEINGARTNER, National Sunflower Association, 4023 N. State Street, Bismarck, ND 58501

Abstract: Numerous surveys have determined that blackbird damage represents about 2% of the value of the sunflower crop or about \$7 to 10 million annually. But there are few tools that farmers can use to control bird damage. Failure to find cost-effective methods may result in farmers using their own “country” methods of controlling damage. The National Sunflower Association is supportive of managing blackbird populations to maintain the economic viability of sunflower and other grain crops.

Key words: avicides, blackbirds, cattails, sunflower, *Typha* spp.

Sunflower has been long recognized as the primary food for feeding wild birds in backyard feeders. Aelred D. Geis, in a landmark 1980 study, determined that sunflower seed was the most preferred feed for most wild bird species. That did not come as news for most of the sunflower producers in the Dakotas and Minnesota. They had already experienced first-hand what Mr. Geis found in his research. For sunflower farmers, the problem was not the occasional bird visiting their fields for a quick snack; it was thousands of mostly red-winged blackbirds (*Agelaius phoeniceus*) making sunflower fields their second home.

Sunflower was introduced in the United States as a commercial crop in the 1970s. Sunflower is a high-oil-content seed (40% to 45%) that works well in most crop rotations in the more arid regions from the Dakotas to Texas. The plant is considered drought tolerant and has a deep root system that can mine leached nitrogen. Additionally, sunflower has generally provided better cash returns than some of the small grains that have been planted in this region for generations.

As with any crop, there are production challenges. Weeds are the major pests, but producers are finding an ever-increasing choice of herbicides to control them. Insects are critical pests as well though all but 1 sunflower insect can be controlled through use of any number of safe and effective insecticides. Disease may impact sunflower crops, but most sunflower diseases can be controlled through crop rotation or by breeding plants for genetic resistance. Blackbirds are yet another problem for sunflower producers; however, unlike in weed, insect and disease management, there are few tools in the farmer’s arsenal that can effectively control blackbirds.

Blackbird damage to sunflower is easily identified. The damage comes at the very end of the production season. Thousands of blackbirds in a sunflower field are easily recognized by the producer from his or her pickup. The first line of defense for producers is to limit

any fields next to major blackbird nesting and roosting sights. This defense is marginal because there are many wetlands in the production region and blackbirds are able to fly several miles for a good food source.

Controlling cattails is becoming an important weapon in the fight against blackbird depredation. Farmers destroy cattails in dry wetlands. Farmers, and federal and state agency personnel, in particular those employed by the U.S. Department of Agriculture (USDA) Wildlife Services Program, spray herbicides to control cattails. This has good appeal because a wetland with fewer cattails has a lower blackbird-holding capacity. A wetland with fewer cattails is also a better habitat for desirable waterfowl such as ducks and geese. In addition to removing cattails to reduce available suitable blackbird habitat, removing trees is also an option.

The most common tools used by farmers to control blackbird damage are shotguns and high-powered rifles. Farmers have learned that these are very effective in dispersing the birds. However, firearms use is not only a dangerous strategy, it also primarily moves the birds to another field, rather than dispersing them permanently. Additionally, firearms are ineffective when the blackbird numbers are large. Propane cannons are also used but effectiveness is limited.

A new tool in blackbird management is a product called Bird Shield™. This repellent is designed to irritate the birds’ olfactory nerves, inflicting enough discomfort to cause the birds to move on after entering a sprayed field. Farmers report both success and failure with the product, which is now in its second year of availability.

Avitrol has been in the market for a long time. This is also a product designed to disperse blackbirds. However, producers view it as ineffective and costly.

In the end, all of the above-described tools deal with the symptom; they are not designed to cure the problem.

In numerous surveys, farmers have identified blackbirds as 1 of their main problems when producing sunflower. Losses have been quantified. Numerous loss surveys have determined that blackbird damage represents about 2% of the value of the sunflower crop or about \$7 to \$10 million annually, depending on the acreage planted and the price in a particular year. Two percent damage may not sound like much, however, the damage is not evenly spread out among the 2.5 million acres of sunflower. About 20% of the acreage may suffer serious damage of 10% or more.

The most common response to sunflower depredation, among farmers in the last 5 years, is to simply drop the crop in the rotation. Farmers have replaced sunflower with GMO soybeans, a crop that's easy to produce. Early-maturing varieties of soybeans have been developed, and there are no blackbird problems for this crop at the present time. The most dramatic switch in acreage has occurred in wetland areas of North Dakota and South Dakota. For example, Stutsman County farmers in east-central North Dakota traditionally planted 130,000 acres of sunflower each year and about 10,000 acres of soybeans. As of 2001, 70,000 acres of sunflower were planted to 110,000 acres of soybeans.

There is a very real question about the survivability of the sunflower crop in the United States. Yes, there will always be some level of acreage. But the question is – will the acreage level remain economical in terms of supporting research programs and a processing infrastructure?

Farmers are adding more acres to their farms each year and, as a result, farms are spreading out over larger areas. This is a limiting factor when trying to successfully control blackbird damage with a traditional method such as the high-powered rifle. Farmers continue to need a blackbird control product that provides a reasonable level of assurance that it will work. It appears that, in most cases, there are simply too many hungry blackbirds for effective management. To farmers, it appears that the blackbird population is increasing annually.

One needs to ask if a sunflower crop in the United States is really needed? A growing number of backyard bird feeders are likely to say yes! The sunflower industry estimates that a minimum of 500,000 acres of sunflower production end up in bird-food bags. This amount of seed can be imported from places like Argentina, but consumers would see higher costs.

The snack food industry is also an important consumer of sunflower. The industry is becoming more dependent on NuSun sunflower oil for producing a healthy potato chip – one without trans-fatty acids. The U. S. Food and Drug Administration has announced that all food product labels must begin indicating the trans-fat content by 2006, and consumers are pressing food companies to eliminate trans-fatty acids now. McDon-

alds and Frito Lay, for example, recently announced that they are either lowering or eliminating trans-fatty acids in their food products. NuSun sunflower oil contains no trans-fatty acids and is 1 of only 3 vegetable oils that can be used in commercial frying. The huge-volume oils like soybean and canola oil must be hydrogenated before they can be used in commercial frying, and it is the hydrogenation process that produces trans-fatty acids. So, I repeat the question . . . is a viable sunflower industry necessary in the United States?

To this day, blackbird control remains a controversial subject. In the United States, many wild animal populations are reduced by hunting. For example, millions of ducks, geese and other game birds and animals are killed annually. Additionally, domestic species such as dogs and cats, are neutered or spayed. Humans themselves use population control measures. Even so, there is still considerable opposition to any type of blackbird population control even though blackbirds are well-recognized as the most abundant bird species in North America, contributing to more than \$100 million in agricultural damage annually.

Some people were incensed when they learned of population control options, such as spring baiting, in a draft USDA environmental impact statement. The issue seems to boil down to "whose bull is being gored." Most urban residents are physically removed from crop fields or feedlots where millions of depredating blackbirds can descend. Because the problem may not be easily visible, urban residents may be emotionally detached from this human-bird conflict and fail to understand the magnitude of the problem and the need for control. Interestingly, though blackbird management stirs strong emotions, people appear to accept the management of other species, especially urban deer.

If the blackbird population cannot be managed to minimize agricultural losses, then society will need to pay the bill. Farmers cannot be expected to repeatedly shoulder the financial burden of feeding the millions of blackbirds that society apparently wants to support. It is important that all parties concerned recognize that blackbirds present a serious agricultural production problem. Control methods must remain available. Keeping Wildlife Services program personnel from using the avicide DRC-1339 is not a solution. It only forces independent producers to take whatever measures they deem necessary to protect their crops. Farmers may be forced to generate their own 'country' methods of controlling damage, and some of these control methods are not particularly friendly to any species.

It will take a partnership between farmer groups and wildlife and conservation concerns to ensure acceptable blackbird management occurs. If this fact is not recognized, and wildlife and conservation groups do not step to the plate and take leadership in a search for a solution, we all are likely to lose.